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BUREAU OF LAND MANAGEMENT
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In Reply Refer to:
3120 (930 JRK)
March, 2017 Lease Sale

MAR 22 2017

CERTIFIED MAIL—RETURN RECEIPT REQUESTED

DECISION

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:
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March 23, 2016
Competitive Oil and Gas
Lease Sale

PROTEST DENIED

For the March 23, 2017, Competitive Oil and Gas Lease Sale, the Bureau of Land Management (BLM) Eastern States Office (Eastern States) received 78 protest submissions, out of which 52 were considered valid protests. The BLM considered a submission a valid protest if it met all of the requirements described in the BLM Eastern States Competitive Oil and Gas March Lease Sale Notice (Sale Notice). These protests disputed the inclusion of some or all of the twenty-one Ohio parcels¹ (Subject Parcels) included for the Sale Notice. However, Eastern States is withdrawing one Subject Parcel from the March 23rd, 2017 Lease Sale to resolve questions of ownership and existing rights for minerals acquired by the United States government during the formation of the Wayne National Forest. Once these questions are resolved, the Subject Parcel may be offered at the next available competitive lease sale. Finally, for the reasons stated below, the protest is hereby denied.

BACKGROUND

Parcel Review

Between April, 9, 2012 and April 19, 2012, Subject Parcels were nominated for ESO's consideration for leasing by interested parties in accordance with 43 CFR §3120.3. Subject Parcels include unleased federal mineral estate administered by BLM, and within the jurisdiction of ESO and the Northeastern States District (NSD). Following ESO preliminary adjudication of ownership and availability of minerals, Subject Parcels were forwarded to the NSD for review of environmental concerns, including interdisciplinary analyses and field visits, in compliance with National Environmental Policy Act (NEPA) and BLM's national policy codified in BLM manuals, handbooks, and Instruction Memorandums.

When BLM seeks to issue oil and gas leases for acquired lands managed by the Forest Service

¹OHES 058226; OHES 058227; OHES 058228; OHES 058229; OHES 058230; OHES 058231; OHES 058232; OHES 058233; OHES 058234; OHES 058235; OHES 058236; OHES 058237; OHES 058240; OHES 058243; OHES 058249; OHES 058251; OHES 058252; OHES 058254; OHES 058255; OHES 058256; OHES 058257.

(such as those in the Wayne National Forest), the Federal Onshore Oil and Gas Leasing Reform Act (FOOGLRA) requires consent and request for pertinent lease stipulations from the Forest Service prior to leasing (30 U.S.C. § 226(h)). Accordingly, NSD's review included a request for Forest Service inspection of the proposed parcels and consent to ensure leasing of the parcels would be in conformance with the applicable Forest Plan decisions, and the receipt of consent to offer the described parcels, as further discussed below.

National Environmental Policy Act Analysis

In compliance with NEPA, BLM undertook an environmental analysis to determine whether oil and gas leasing within 40,000 acres of the Marietta Unit, Wayne National Forest could occur with no significant environmental impact, or if a more in depth environmental impact statement (EIS) would be required prior to offering of Subject Parcels. The NSD conducted site visits on October 26 and 27, 2015 within portions of the Marietta Unit, and consulted with the Forest Service and all applicable federal and state agencies during preparation of the NEPA document: Environmental Assessment DOI-BLM-Eastern States-0030-2016-0002-EA, Oil and Gas Leasing, Wayne National Forest, Marietta Unit of the Athens Ranger District (Marietta EA).

Eastern States, NSD, and Forest Service also conducted a series of public meetings. Beginning on November 1, 2015, public notices regarding these meetings appeared in local newspapers, including the Marietta Times, Athens Messenger, and the Ironton Tribune, for two consecutive weeks. The BLM also issued a press release to other news outlets on November 2, 2015, notifying the public of dates, times, and locations of the public meetings. Public meetings were held on November 17, 2015 in Marietta, November 18, 2015 in Athens, and November 19, 2015 in Ironton. The primary purpose for these public meetings was to provide information and gather public input regarding issues that the BLM should consider in this Marietta EA. At each meeting, the BLM and the Forest Service provided information regarding proposed oil and gas leasing activities throughout the Wayne NF, displayed maps showing locations of nominated parcels for proposed leasing and posters detailing the administrative processes associated with Expressions of Interest (EOIs), leasing & NEPA, and answered other inquiries regarding the project.

In November 2015, the BLM also created a project website for the Marietta EA to provide the public links to documents, additional project information and comment opportunities, including methods for comment submission, maps and EOI information. The website is accessible through the BLM National NEPA Register at: https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do. On April 28, 2016, the draft Marietta EA was posted on the project website in accordance with applicable BLM Manual and Handbook 3120 Competitive Leasing and Washington Office IM No. 2010-117. As a result of the public review period, the BLM received approximately 13,700 comments by email and 480 comments by U.S. postal service or FedEx. Approximately 300 comments were identified as substantive in accordance with NEPA. Public comments were addressed by either expanding existing sections of the EA, providing clarification, or adding additional information. On October 14, 2016, BLM posted the Environmental Assessment DOI-BLM-Eastern States-0030-2016-0002-EA, Oil and Gas Leasing, Wayne National Forest, Marietta Unit of the Athens Ranger District (Marietta EA). The changes made to the draft Marietta EA are summarized in a comment matrix attached as Appendix A in the Final Marietta EA.

The Marietta EA is in conformance with the 2006 *Final Revised Land and Resource Management Plan, Wayne National Forest* and the 2012 Supplemental Information Report (2012 SIR) on oil and gas prepared by the Forest Service in coordination with the BLM. The Marietta EA incorporates by reference the relevant information from the 2006 Forest Plan, Final Environmental Impact Statement and the 2012 SIR, in accordance with 40 CFR 1502.21.

The final Marietta EA for the Ohio parcels describes its purpose and need as follows (Page 16):

The purpose of the Proposed Action is to support the development of oil and natural gas resources that are essential to meeting the nation's future needs for energy while minimizing adverse effects to natural and cultural resources. The BLM minimizes adverse effects to resources by identifying appropriate lease stipulations and notices, best management practices, and mitigations. It is the policy of the BLM as mandated by various laws, including the Mineral Leasing Act of 1920, as amended (30 United States Code [USC] 181 et seq.), the Federal Land Policy and Management Act of 1976 (FLPMA), and the Energy Policy Act of 2005 to make mineral resources available for development to meet national, regional, and local needs. The oil and gas leasing program managed by the BLM encourages the sustainable development of domestic oil and gas reserves which reduces the dependence of the United States on foreign sources of energy as part of its multiple-use and sustainable yield mandate.

The leasing of federal minerals is vital to the United States as it seeks to maintain adequate domestic production of this strategic resource. Industry uses the BLM EOI process to nominate federal minerals for leasing. The Proposed Action is consistent with the BLM's mission and requirement to evaluate nominated parcels and hold quarterly competitive lease sales for available oil and gas lease parcels.

The Marietta EA considered two alternatives in detail (Page 21-29):

Alternative 1- No Action Alternative

Under the No Action Alternative, the BLM would not offer federal minerals in the Marietta Unit for oil and gas leasing, including both the parcels requested in currently pending EOIs and all other federal minerals in the Marietta Unit. Without a lease (No Action Alternative), operators would not be authorized to access federal minerals at the time of development but could develop adjacent privately owned minerals, potentially resulting in drainage of federal minerals without benefit to the government.

Alternative 2- Lands Available for Leasing Alternative

Under this alternative, the Bureau of Land Management (BLM) proposes to make available for lease up to approximately 40,000 acres of federally-owned mineral estate located in the Marietta Unit of the Athens Ranger District, Wayne National Forest, in Monroe, Noble, and Washington Counties in Ohio. This approximate acreage represents the total amount of federally-owned minerals that could be nominated and potentially be made available for leasing on the Marietta Unit. Although this EA analysis assumes that both oil and gas may be produced in the future within the Marietta Unit, natural gas is more likely to be produced.

The Marietta EA considered but eliminated from detailed analysis an additional alternative (page 29):

Offer all leases with a no-surface-occupancy stipulation

Offering all leases with a no-surface-occupancy (NSO) stipulation was suggested through public comment. However, this alternative would not fulfill the purpose and need described in Chapter 1. This alternative would unnecessarily constrain oil and gas occupancy, especially in this highly fragmented landscape, where the ability to cross federal land may be critical to enabling an operator to develop. A No Surface Occupancy stipulation has been incorporated for all slopes in excess of 55 percent and a Controlled Surface Use stipulation applies to slopes between 35 and 55 percent.

Lease minerals for vertical drilling only

Offering all leases with a vertical drilling only stipulation was suggested through public comment. However, this alternative would not fulfill the purpose and need described in Chapter 1. A vertical drilling only stipulation would likely result in far greater surface disturbance as more wells would likely be drilled, and result in the least efficient extraction of Federal minerals.

The rule of capture is an oil and gas doctrine that allows one to produce oil and gas from their lands even though said oil and gas flows from the lands of their neighbors. In Ohio, the rule of capture entitles landowners to “offset” wells, or wells that do not need to conform with state conservation standards, when one's neighbor is draining their mineral interest. Second, a vertical drilling only alternative is equivalent to a ban on directional drilling, which in turn would be tantamount to a ban on development of the Utica, Marcellus, and other tight formations underlying the forest. Such tight formations require horizontal drilling to extract trapped oil and gas.

Through the analysis in the Marietta EA, the NSD determined whether the proposed parcels were appropriate for leasing and what mitigation measures (stipulations) should be applied to the leases for the protection of natural and cultural resources. In so doing, the NSD determined whether the 2006 FP/FEIS and 2012 SIR evaluation of various resource values, potential impacts to those resources, and appropriate mitigation measures to prevent potential impacts met the standards to be relied upon as a basis for the proposed decision. On October 14, 2016, a FONSI was signed by the NSD District Manager documenting BLM’s determination that oil and gas development may occur without significant impact, and thus, no EIS is not required to offer Subject Parcels for lease.

Protesters’ Standing

On January 13, 2017, BLM posted Notice of Competitive Oil and Gas Internet-Based Lease Sale for the March Lease Sale. The Sale Notice described the manner in which a member of the public could protest inclusion of lands in the planned sale (Page 9) including these requirements:

- *All protests must be postmarked or faxed by February 13, 2017...*
- *A protest must state the interest of the protesting party in the matter...*
- *The protest must specify the parcel being protested.*

- *A protest must include the name and address of the protesting party and reference the specific serial number or parcel number that is being protested.*

None of the protesters have provided to the BLM "colorable allegations of an adverse effect, supported by specific facts, set forth in an affidavit, declaration, or other statement of an affected individual, sufficient to establish a causal relationship between the approved action and the injury alleged" (183 IBLA 97, 107). Therefore the protesters allegations of all adverse effects are general claims of use of the Wayne National Forest. Nonetheless, given the BLM's directions to the public in the Sale Notice regarding submittal of protests, and the lack of specific agency guidance for adjudicating when an individual or group may have standing to protest lease parcels, the BLM has decided to provide more information about the specific concerns of the Protesters. However, the BLM does so with the reservation that the Protesters may not have standing to bring an appeal of this protest decision to the IBLA.

DISCUSSION

The BLM recognizes that the public raised substantive arguments: *water pollution and depletion, air pollution, traffic & noise, recreation, wildlife/T&E, public health and safety, seismic risk, climate change, cultural resources, tribe involvement, the multiple use act and the use of the 2006 Forest Plan, not doing an EIS and public input.* However, the BLM feels it addressed these concerns in its Marietta EA by including mitigation, best management practices and respective stipulations from both the Forest Service and the BLM itself, in case a leasing parcel or parcels do lead to oil and gas exploration and development in the future:

Water Pollution

The Marietta EA adequately analyzes the current state, and potential impacts, on water resources related to the proposed action. The Marietta EA states (Page 105):

While the act of leasing federal minerals would produce no impacts to surface water quality, subsequent exploration and development of the lease parcels have the potential to produce impacts. The potential effects to surface water from reasonably foreseeable mineral development include sediment loading of stream channels due to the erosion associated with site development or operational transport and introduction of pollutants, toxic chemicals, sediment or debris, via spills and releases to surface water from oil/produced water treatment, storage tanks, handling and sanitary facilities or oil/produced water transportation mediums (trucks or pipelines).

Specifically, the Marietta EA addresses concerns regarding withdrawals of water for oil and gas operations (Page 106):

The BLM and Forest Service would not approve water withdrawals that would draw down a surface waterbody to the extent that aquatic life would be measurably adversely impacted, for example, by dewatering a stream enough to entrap fish or expose mussels to dry conditions in a stream that would normally have perennial flow.

As to local aquifers and groundwater, the Marietta EA states (Page 106):

Local aquifers (within the Marietta Unit) do not yield sufficient water to support industrial activities within the Marietta Unit. Therefore, the likelihood that the proposed leasing action and potential future mineral development would affect groundwater quantity is negligible.

However, the Marietta EA does acknowledge potential environmental concerns to water resources, as well as mitigating measures (Page 106):

Future mineral development activities would pose some risk of accidental spills of drilling fluids, produced water, and other chemicals (see also Section 4.7, Wastes, Hazardous or Solid). This risk would be minimized by the requirement, described in the 2012 SIR, for operators to use tanks, instead of open pits, to hold all fluids other than fresh water... The only areas where a spill would pose an unacceptable risk to groundwater quality are designated wellhead protection areas or certain locations within the Ohio River and Little Muskingum River floodplains (Thompson, 2012). Other locations throughout the Marietta Unit tend to have low groundwater pollution potential due to low hydraulic conductivity and depths of groundwater (around 200 feet or less from the surface). Drilling to a production zone that is below a potable water-bearing formation poses the risk of allowing brine and other chemicals to migrate up into a potable water zone. This risk is mitigated in federal wells by casing and cementing requirements in Onshore Oil and Gas Order Number 2.

Air Pollution

The Marietta EA adequately addresses potential environmental impacts to air quality. As to the ability to identify site-specific air quality concerns, the Marietta EA states (Page 94):

Further NEPA analysis would be conducted at the [Application for Permit to Drill (APD)] stage, when specific development details with which to analyze potential GHG emissions are likely to be known.

The Marietta EA establishes the following mitigating measures for potential impacts to air quality identified during the APD stage (Page 96):

The BLM encourages industry to incorporate and implement BMPs to reduce impacts to air quality through reduction of emissions, surface disturbances, and dust from field production and operations...Additionally, the BLM encourages oil and natural gas companies to adopt proven, cost-effective technologies and practices that improve operational efficiency and reduce natural gas emissions. In October 2012, USEPA promulgated air quality regulations for completion of hydraulically fractured gas wells (USEPA, 2015b). These rules required air pollution mitigation measures that reduced the emissions of volatile organic compounds during gas well completions. Mitigation included utilizing a process known as a “green” completion in which natural gas brought up during flowback is captured in tanks rather than in open fluid pits. Among other measures to reduce emissions include the USEPA’s Natural Gas STAR program. The USEPA U.S. inventory data shows that industry’s implementation of BMPs proposed by the program has reduced emissions from oil and gas exploration and development

(USEPA, 2016i).

Traffic & Noise

The Marietta EA adequately addresses traffic when it states (page 111):

“Future mineral development within the Marietta Unit would likely result in increased truck traffic to the area and potential collisions with wildlife crossing the roads, such as the whitetail deer. Effects to traffic patterns on the road system within the Forest may vary depending on the location(s) of the future well(s) and the time of day the roads are used. Increases in vehicle traffic associated with potential future mineral development could result in longer drive times for recreational visitors to the WNF or nearby residents. An increase in truck traffic may also increase the risk of potential traffic-related accidents. Such traffic may create dust on dirt roads, hampering wildlife viewing and degrading scenic views, while possibly disrupting normal activity patterns, such as hiking. The length and duration of disruption would depend on the amount of future exploration and drilling. After exploration and drilling, the vehicle traffic would decline but would still be subject to the occasional need for vehicle access to the well sites.”

The Marietta EA also proposes solutions road impacts due to traffic (page 130):

“To mitigate road degradation effects, as described in Section 3.9, the WNF may implement road use agreements with oil and gas operators to reclaim expenses associated with use of Forest Development Roads for access to oil and gas wells. These agreements would allow the Forest Service to reclaim expenses associated with the use of the roads by the operator’s heavy equipment through surface replacement dollars where applicable.”

The Marietta EA adequately addresses solutions for noise from possible future oil and gas development. As to mitigating measures for potential impacts to noise resources, the Marietta EA states (Page 114):

There are various measures that can be used to minimize the potential impacts of noise, such as using mufflers on equipment, taking advantage of topography when siting roads and other facilities, and using sound barriers. In addition, various notifications and stipulations may apply for noise control, for example, to coincide with periods when impacts to wildlife species would be the lowest, or to utilize specific noise dampening technologies. Also, the WNF can include measures related to muffling of noise if the well site is located in close proximity to private homes and/or populated areas or to or their habitat. Furthermore, the WNF can strive to schedule mechanized activities along travel ways, use areas, and water bodies to occur during low-use periods to alleviate noise and visual impacts.

Recreation

The Marietta EA adequately addresses solutions for recreation from possible future oil and gas

development. As to mitigating measures to potential impacts on noise resources (Page 113):

If future development occurs, the BLM, in consultation with the Ohio DNR, WNF, operators, and other parties, would seek to minimize auditory or visual impacts on recreational resources through simple, reasonable measures, such as restricting construction to certain times of year or requiring the preservation of plants that provide visual screening.

Wildlife/Threatened and Endangered Species

The Marietta EA adequately addresses wildlife and special status species. The Marietta EA states that there are no documented hibernacula for the Indiana bat within the Marietta Unit in Ohio (Page 48):

The WNF contains one documented hibernaculum, and it is not on the Marietta Unit...the Athens and Ironton Units most likely contain the most heavily concentrated populations of Indiana bat, based on thorough surveys conducted previously throughout the WNF by the USFWS.

For the Northern Long Eared Bat the Marietta EA clearly uses the 4(d) rule of the USFWS which states that in areas of the bat's range that may be affected by white-nose syndrome, incidental take caused by some tree removal and tree-clearing activities, does not need to be prohibited to conserve the northern long-eared bat when conservation measures that protect the bat's most vulnerable life stages are taken (Page 48):

The Forest Service activities fall under the 4(d) rule that exempts incidental take of northern long-eared bat, provided those activities adhere to certain, basic conservation measures to protect hibernacula and roost trees.

For Aquatic Species such as mussels the Marietta EA states (Page 49):

Fanshell and pink mucket pearlymussel are not documented anywhere on the WNF... Sheepnose and snuffbox may be present on waterways within the WNF and were not included in the 2005 BO, but the USFWS concurred with the Forest Service that the 2012 SIR did not need any update regarding these species because neither of these species would be affected by oil and gas activities on the national forest.

In addition, the BLM prepared a Biological Assessment and initiated consultation with the US Fish and Wildlife Service in a letter dated November 4, 2015. The conclusion of the Biological Assessment was that proposed leasing, with the protective measures incorporated into the lease terms, was not likely to adversely affect the Northern long-eared bat, Indiana bat, Fanshell mussel, Snuffbox mussel, Sheepnose mussel, Pink mucket pearly mussel, American Burying beetle, Northern monkshood, Running buffalo clover, Small whorled pogonia, and the Virginia spirea. The protective measures outlined in the BLM's Biological Assessment incorporated stipulations and notices found in the US Forest Service 2006 LRMP/EIS and associated Biological Opinion, plus additional measures for protection of Northern long-eared bat hibernacula and requirements to keep wildlife out of tanks. On July 29, 2016, the BLM supplemented the Biological Assessment by submitting the Northern Long-eared Bat 4(d) Rule

Streamlined Consultation Form.

The conclusion, in the Biological Assessment, that oil and gas leasing is not likely to adversely affect the aforementioned federally listed species is based on the fact that leasing does not authorize any surface disturbing activities. Consistent with the guidance outlined in the US Forest Service 2006 LRMP/EIS and associated Biological Opinion, the BLM and US Forest Service would prepare and submit a Tier II Biological Assessment if, subsequent to leasing, an application for permit to drill is filed with the BLM. The protective measures attached to a lease provide the prospective lessee notice that protection of those species must be taken into consideration if an application for permit to drill is submitted to the BLM. Additional consultation with the US Fish and Wildlife Service would be required at that time.

Public Health

The Marietta EA adequately addresses human health and safety in relation to fracking in Sections 3.8 & 4.8. Eastern States recognizes the public's concern regarding health issues related to possible future hydraulic fracturing, and therefore decided to compile a new section addressing this topic. The Marietta EA states (Pages 109-110):

There would be no direct impacts to public health and safety from leasing, since leasing is an administrative action...BLM acknowledges that if the leasing area was to be developed in the future, environmental hazards of...oil and gas may produce some effects to public health or safety if not properly managed...communities or workforce residing or working near the potential development sites may be at higher risk for accidental spills, fugitive emissions or releases of gas from a future well bore. The level of effect would depend on the product released or spilled, level of activity, density of development, technological and safety controls/regulations in place, and the receptors' susceptibility to risk.

.... As of 2014, most studies addressing the public health implications of oil and gas development have been either predictive and/or descriptive hypothesis generating. The few analytic studies are preliminary and do not provide enough evidence to conclusively determine if oil and gas operations directly result in health effects in nearby populations. Existing studies have provided evidence that hazards are inherently present in and around oil and gas operations and populations can be exposed to these hazards if safety measures are not implemented. People living near oil and gas operations have reported that oil and gas operations affect their health and quality of life, particularly through traffic accidents, air and water pollution, and social disruption expressed as psychosocial stress (University of Colorado at Boulder, 2015). Some short term health effects reported by people living near oil and gas operations include irritation of the eyes, nose, throat, lungs or skin, or other symptoms like headache, dizziness or nausea and vomiting. Some also report sleep disturbance or anxiety associated with noise or light effects from mineral development activities. There is very little information about long term health effects in people living near oil and gas operations.

.... Numerous scientific studies have linked air pollution to a variety of health problems including: (1) respiratory and cardiovascular disease, (2) decreased lung function, (3)

increased frequency and severity of respiratory symptoms such as difficulty breathing and coughing, (4) increased susceptibility to respiratory infections, (5) effects on the nervous system, including the brain, such as IQ loss and impacts on learning, memory, and behavior, (6) cancer, and (7) premature death. Sensitive individuals or those at high risk appear to be at even greater risk for air pollution-related health effects, for example, those with pre-existing heart and lung diseases (e.g., heart failure/ischemic heart disease, asthma, emphysema, and chronic bronchitis), diabetics, older adults, and children. Future mineral development operations within the Marietta Unit that would violate a state and/or federal air quality standard would not be approved.

Seismic Risk

The Marietta EA adequately addresses seismic risks and other geological hazards. Seismic risks are identified and as discussed as follows (Page 103):

...potential geologic hazards may result from future development and production operations. Induced seismic activity, seismic events attributable to human activities, may include landslides or earthquakes. Landslides involve the mass movement of earth materials down slopes and can include debris flows, soil creep and slumping of large blocks of material. Earthquakes occur when energy is released due to blocks of the earth's crust moving along areas of weakness of faults.

The Marietta EA also cites the best available science in regards to the source of possible geologic hazards (Page 103):

A study conducted by the National Academy of Sciences examined the issue of induced seismic activity from energy development. As a result of the study, they found that: (1) the process of hydraulic fracturing a well as presently implemented for shale gas recovery does not pose a high risk for inducing felt seismic events; and (2) injection for disposal of wastewater derived from energy technologies into the subsurface does pose some risk for induced seismicity, but very few events have been documented over the past several decades relative to the large number of disposal wells in operation (National Academy of Sciences, 2012).

.... On April 11, 2012, the Deputy Secretary of the United States Department of the Interior, David Hayes, stated that scientists have been investigating the recent increase in the number of earthquakes in the United States to determine whether there is scientific evidence of a link between unconventional oil and gas production and seismic activity. The preliminary findings did not suggest that HF caused the increased rate of earthquakes. Instead, "at some locations the increase in seismicity coincides[d] with the injection of wastewater in deep disposal wells" (Hayes, D. J., 2012).

The Marietta EA discusses the mitigating measures that will negate these seismic concerns (Page 55):

To ensure that oil and gas exploration and development is conducted in a safe and environmentally sound manner, the BLM approves and regulates all drilling and

completion operations, and related surface disturbance on federal public lands. Prior to approving a Notice of Intent for Geophysical Exploration (NOI) or APD, the BLM identifies all potential subsurface formations that may be penetrated by the wellbore. This includes all groundwater aquifers and any geologic ones that would present potential safety or health risks that may need special protection during drilling. Once the geologic analysis is completed, the BLM reviews the proposed casing and cementing programs to ensure the well construction design is adequate to protect the surface and subsurface environment, including the potential risks identified by the geologist and all known or anticipated zones with potential risks.

The Marietta EA also discloses how the state of Ohio ensures additional protection against seismic risks (Page 104):

The ODNR now requires operators drilling within three miles of a known fault or area of seismic activity greater than 2.0 to install seismometers. If seismic activity above 1.0 is detected, work must pause while the seismic activity is investigated, and work must stop if the investigation reveals a probable connection to the drilling operation. This regulation would affect drilling primarily in the southern half of the Marietta Unit, since the known and inferred faults and seismic areas are generally in Washington County or near the Washington-Monroe County line (Ohio Department of Natural Resources, 2014)

Climate Change

The Marietta EA adequately addresses climate change and emissions. Impacts resulting from direct and indirect effects of oil and gas development are discussed as follows (Page 84):

Climate change has the potential to pose challenges for many resource uses. Increased temperatures, drought and evaporation may reduce seasonal water supplies for wildlife and could impact forage availability. However, in non-drought years, longer growing seasons resulting from thermal increases may increase forage availability throughout the year. Shifts in wildlife habitat due to climate change may influence hunting and fishing activities. Drought and resulting stress on vegetation is likely to increase the frequency and intensity of forest fires and invasive species, causing even more disruption within the ecosystem.

In addition, the Marietta EA included quantitative analyses of greenhouse gases (GHG) impacts. Best available science was used to approach the greenhouse gas emissions calculation for the Marietta EA: “Life cycle greenhouse gas emissions of Marcellus shale gas (and associated supplementary data) (Jiang et al., 2011) was used as the basis for estimating GHG emissions from the preproduction phase of potential oil and gas development in the Marietta Unit” (Page 86). As it relates to Ohio, the Marietta EA states that: “Ohio’s Natural Gas and Crude Oil Exploration and Production Industry and Emerging Utica Gas Formation Economic Impact Study estimated that the average amount of natural gas per the life of a natural gas well is 5 billion cubic feet (bcf) (Kleinhenz & Associates 2011)” (Page 90). “Using...U.S. EPA combustion emission factors for natural gas (see Appendix E) allowed BLM to compare combustion emissions to those calculated for this EA” (Page 93).

The Marietta EA also discloses calculation assumptions (Page 86):

Disturbance for wellpad approximately 5 acres, approximately 6 wells per wellpad (per the 2006 RFDS), approximately 25 years for the lifetime of a well, use of horizontal drilling and hydraulic fracturing.

Based on the location of the proposed lease, geological formations, and similar construction techniques that would be used if future production was to occur in the Marietta Unit, the pre production data gleaned from Jiang et al., 2011, is applicable to possible foreseeable mineral development within the Wayne National Forest.

As to post-production impacts, the Marietta EA states (Page 89):

...emissions associated with the post-production phase of development were calculated based on reasonable assumptions and standard emissions factors. Mean emission factors used in this EA for production of natural gas, processing, transmission and storage, distribution, and combustion were provided by Venkatesh et.al. (2011).

The uncertainties regarding development are also discussed in the Marietta EA (Page 94):

There are many factors that affect the potential for GHG emissions estimates at the leasing stage: a lease may not be purchased, so no GHG emissions would be expected; a lease may be purchased but never explored, so again there would be no GHG emissions; a lease may be purchased and an exploratory well drilled that showed no development potential, so minimal GHG emissions would occur; or a lease may be purchased, explored, and developed. If developed there are notable differences in the potential for emissions related to a wide variety of variables, including the production potential of the well, economic considerations, regulatory considerations, and operator dynamics, to name a few.

The methodology was included step by step within the Marietta EA in pages 90-92.

Cultural Resources

The Marietta EA adequately addresses cultural resources, and is consistent with all required policy and regulation. The Marietta EA states (Page 114):

There would be no direct impacts to cultural resources/paleontology as a result of leasing as there would be no surface disturbance at this stage. Direct and indirect impacts from reasonably foreseeable future oil and gas development may occur to cultural resources if there is ground disturbance. Any known archeological sites within the leasing area, however, would be avoided and declared NSO to the extent possible in accordance with BLM and Forest Service policy. If development is proposed, the Forest Service, as the surface land manager, would conduct site-specific Section 106 compliance measures including surveys, records search, and the appropriate Tribal and SHPO consultation prior to any ground disturbing activities.

....The BLM initiated consultation with the Ohio SHPO under Section 106 of the NHPA, by letter dated November 16, 2015; to date, the SHPO has not responded to the letter,

indicating that they have found no adverse effects on historic properties within the scope of the Proposed Action. Further consultation will take place at the APD phase prior to ground disturbing activities.

Tribal Involvement

The BLM adequately addresses tribe involvement since it conducted the required consultation with the Ohio State Historic Preservation Office (SHPO) and tribes. The BLM initiated consultation with the Ohio SHPO under Section 106 of the NHPA, by letter dated November 16, 2015. On November 6, 2015, the BLM sent certified letters to seven federally recognized tribes who have a known connection to the area notifying them of the Proposed Action and asking to identify any concerns with respect to the Proposed Action.

The BLM received no responses to these letters; therefore, no concerns were identified. That does not mean though that if a tribe has a concern later down the road it won't be heard, because further consultation would occur at the APD phase prior to ground disturbing activities.

Multiple Use Act

Both the U.S. Forest Service and the Bureau of Land Management are governed by statutes and policies mandating land and resource management for multiple uses on a sustained yield basis. Over the years, increasing demands and pressures for resources and services from these Federal lands, plus heightened public interest in how these lands are used, have caused management and administration to become more complex. The BLM wants to make clear however, that it does not violate the Multiple Use and Sustainable Yield Mandate because under its multiple-use mission, set forth in the Federal Land Policy and Management Act of 1976 (FLPMA), the BLM is required to manage the public lands using the same principles of multiple use and sustained yield that the Forest Service applies to national forests and grasslands. FLPMA mandates that the BLM manages public land resources for a variety of uses, such as energy development, livestock grazing, recreation, and timber harvesting, while protecting a wide array of natural, cultural, and historical resources. This means that resources must be used in a combination that will best meet the needs of the American people. Furthermore, in managing for multiple use, the BLM does not need to accommodate every use on every parcel of land.

Use of 2006 Forest Plan

The BLM adequately uses the 2006 FS ROD because, even though it did not initially incorporate industrial horizontal drilling and hydraulic fracturing methods, a 2012 Supplemental Information Report (SIR) was conducted in order to determine if the new method represented a significant change from the vertical method explored previously. The 2012 report, which was incorporated to the Final EA, concluded that no further analysis was necessary and this is clearly stated in the Final EA:

“The 2012 SIR was completed to determine if the 2006 Forest Plan/EIS needed to be updated in light of new information regarding hydraulic fracturing. The Forest Service determined that the potential effects associated with hydraulic fracturing and horizontal

drilling were not significantly different from those of vertical drilling and that the mitigation measures in place for vertical drilling would suffice for horizontal drilling/hydraulic fracturing” (Appendix A [Page 173])

Not doing an EIS

As stated, BLM is mandated by applicable laws to conduct four quarterly lease sales every fiscal year. Furthermore, per 43 CFR 3120.1-3 only the Assistant Secretary for Land and Minerals Management may suspend a lease sale for good and just cause after reviewing the reasons for an appeal. As discussed, the Final EA adequately account for impacts of oil and gas operations. Potential impacts have been determined to be mitigated by the measures discussed in this document. In addition, under NEPA an EA may be relied upon when the analyses show that no significant impacts to environmental resources would occur. No significant impact does not mean no impact at all it just means that necessary regulations and mitigations can and will be put into place to negate any potential significant impact. The Final EA adequately mitigates any potential impacts, therefore BLM can determine based on the analyses included throughout the EA, that significant environmental impact would not occur.

Public Input

Per CEQ regulations, scoping is required for the preparation of Environmental Impact Statements, and optional for Environmental Assessments. The meetings held in November 2015 were designed to allow informal information exchange between BLM, the Forest Service, and the public. The agencies documented the feedback and noted the public issues of interest in the Marietta EA (Section 1.7.4, Page 20). These meetings were described in the Marietta EA (Pages 19-20):

The BLM conducted external scoping for the Proposed Action through a series of public meetings, requesting public comments, and through close coordination and data sharing with the Forest Service. Public notices appeared in local newspapers including the Marietta Times, Athens Messenger, and the Ironton Tribune for two consecutive weeks starting on November 1, 2015. The BLM also issued a press release to various news outlets on November 2, 2015, notifying the public of dates, times, and locations of the public meetings. Public meetings were held on November 17, 2015 in Marietta, November 18, 2015 in Athens, and November 19, 2015 in Ironton. The primary purpose for those public meetings was to provide information and gather public input regarding issues that the BLM should consider in this EA. At each meeting, the BLM and the Forest Service provided information regarding proposed oil and gas leasing activities throughout the WNF; displayed maps showing locations of requested leases and DOI-BLM-Eastern States-0030-2016-0002-EA, 21 posters detailing the administrative processes associated with EOIs, leasing, and the NEPA; and answered inquiries regarding the project.

A primary purpose of NEPA is to inform the public about the environmental implications of Federal agency actions before they are made. Therefore, it is BLM policy to offer a 30-day public comment period on Draft EAs for fluid mineral leasing actions. The public has additional opportunities to be involved in the process when the Marietta EA and Sales Notice is posted for the 30-day protest period. As stated above, Eastern States followed these guidelines for the

Marietta EA and March 2017 Lease Sale.

Furthermore, Eastern States complied with applicable CEQ regulations (40 CFR 1503.4), which recognizes several options for responding to substantive comments, including: modifying one or more of the alternatives as requested, developing and evaluating suggested alternatives, supplementing, improving, or modifying the analysis, making factual corrections, explaining why the comments do not warrant further agency response, citing cases, authorities, or reasons to support the BLM's position.

In addition, the CEQ recommends that responses to substantive comments should normally result in changes in the text of the NEPA document, rather than as lengthy replies to individual comments in a separate section (see Question 29a, CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations, March 23, 1981). Therefore, a short response to each substantive comment and a citation to the section or page where the change was made was the method utilized for the Marietta EA. Similar comments were summarized and responded to as a whole and if the comment did not entail any change to the Marietta EA it was also disclosed within the response matrix developed. This response matrix was attached as Appendix A (Page 161) to the Marietta EA.

DECISION

After a careful review, it has been determined that all of the protested Lease Sale Parcels described in the March Sale Notice may be offered at the March Lease Sale. The protests to all Lease Sale Parcels are denied for the reasons described above. As stated above, one Subject Parcel included in the March Sale Notice will not be offered at the March Sale, but for reasons other than this protest.

You may appeal this decision to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and the attached Form 1842-1 (Attachment 2). If you file an appeal, your notice of appeal must be filed in the BLM Eastern States Office, 20 M Street SE, Suite 950 Washington, D.C. 20003, within 30 days from receipt of this decision. You have the burden of showing that the decision appealed from is in error.

If you wish to file a petition (pursuant to regulation 43 CFR 4.21) (request) for a stay (suspension) of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standard for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,

- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

Please contact Elena Fink, Deputy State Director, Natural Resources, (202) 912-7730 or Justin Katusak, State Litigation Coordinator, (202) 912-7727 with any further questions or concerns.

A handwritten signature in black ink, reading "Karen E. Mouritsen". The signature is written in a cursive, flowing style with a large initial "K" and "M".

Karen E. Mouritsen
State Director